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July 11, 1994

Richard Hiett
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Re: Shell Service Station
WIC #204-5508-5801
500 - 40th Street
Oakland, California
WA Job #81-601-104

Dear Mr. Hiett:

This letter describes recently completed and anticipated activities at the Shell service station referenced above (Figure 1). This status report satisfies the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Chapter 3, Subchapter 16, Article 5, Section 265.d. Included below are descriptions and results of activities performed in the second quarter 1994 and proposed work for the third quarter 1994.

Second Quarter 1994 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured depths to ground water and collected ground water samples from eight of the site wells. Wells MW-6, MW-9, MW-11 and MW-13 were inaccessible due to parked cars. BTS' report describing these activities and the analytic report for the ground water samples are included as Attachment A.
- Weiss Associates (WA) compiled the ground water elevation and analytic data (Tables 1, 2 and 2b) and prepared a ground water elevation contour map (Figure 2).

Anticipated Third Quarter 1994 Activities:

As indicated in our April 15, 1993 monitoring report, WA has implemented semi-annual sampling of wells EW-1, MW-2 through MW-10 and well MW-13. These wells will be sampled in

Richard Hiatt
July 11, 1994

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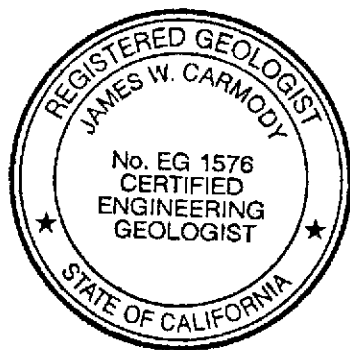
the second and fourth quarters of 1994. Wells MW-11 and MW-12 will continue to be sampled quarterly.

WA will submit a report presenting the results of the third quarter 1994 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results, and a ground water elevation contour map.


Conclusions and Recommendations:

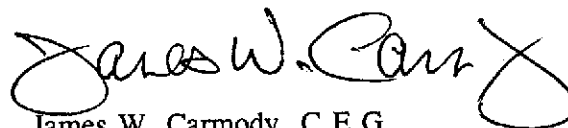
WA recommends continued ground water sampling to monitor ground water flow directions and hydrocarbon concentrations.

Please call if you have any questions.



Sincerely,
Weiss Associates


John Wolf
Technical Assistant


James W. Carmody, C.E.G.
Senior Project Hydrogeologist

JAW/JWC:jaw

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Attachments: A - Blaine Tech Services' Ground Water Monitoring Report

cc: Lynn Walker, Shell Oil Company, P.O. Box 5728, Concord, CA 94520-9998
Jim Matthews, Shell Oil Company, P.O. Box 4848, Anaheim, CA 92803
Brian Oliva, Alameda County Department of Environmental Health, 80 Swan Way,
Room 200, Oakland, CA 94621-1426

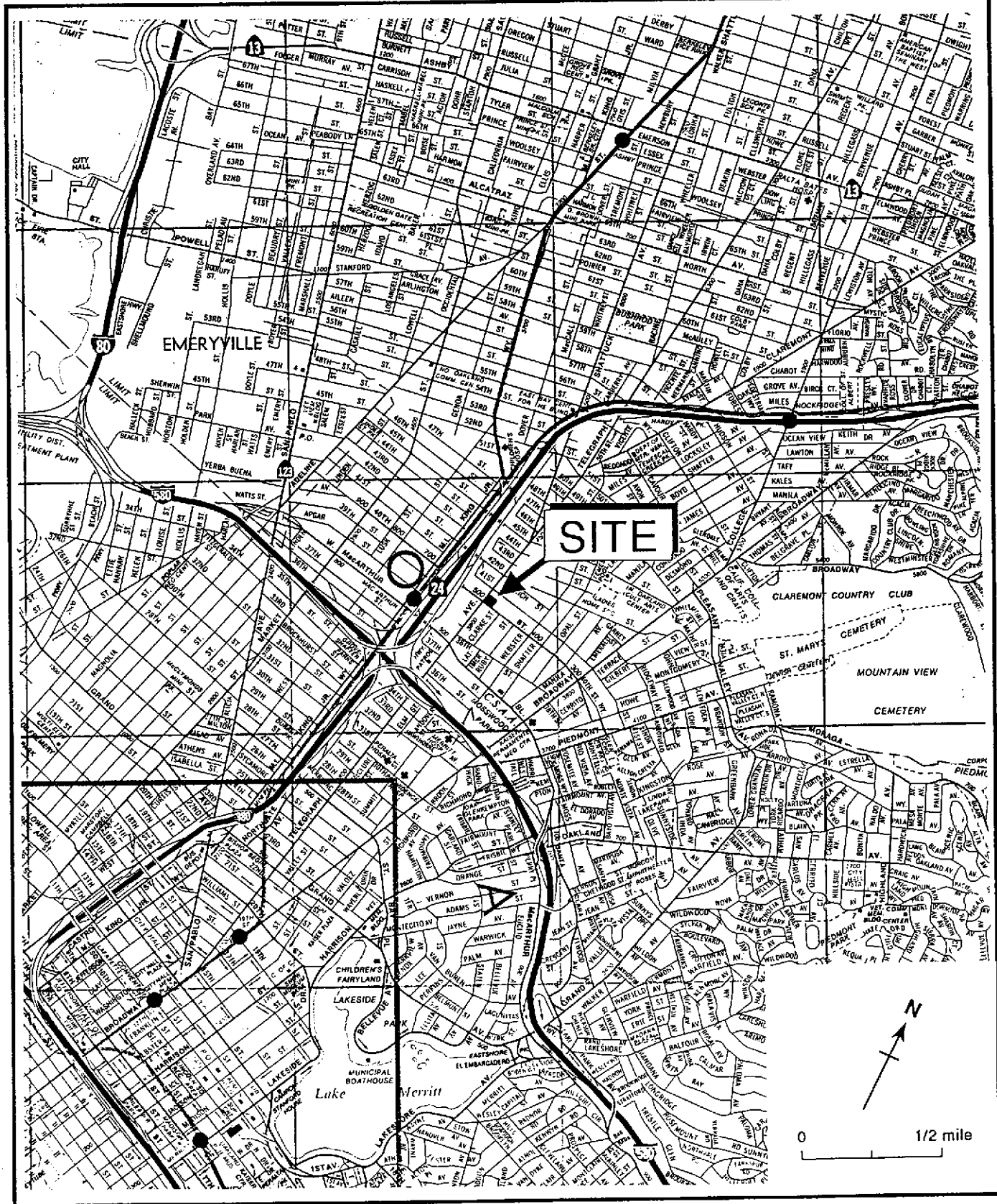


Figure 1. Site Location Map - Shell Service Station WIC #204-5508-4903, 500 40th Street, Oakland, California

EXPLANATION	
⊙ MW-2	Monitoring well
⊙ EW-1	Extraction well
69.19	Ground water elevation, ft above mean sea level (msl)
NM	Well not measured
-67.0	Ground water elevation contour, ft above msl, approximately located, dashed where inferred
→	Inferred ground water flow direction

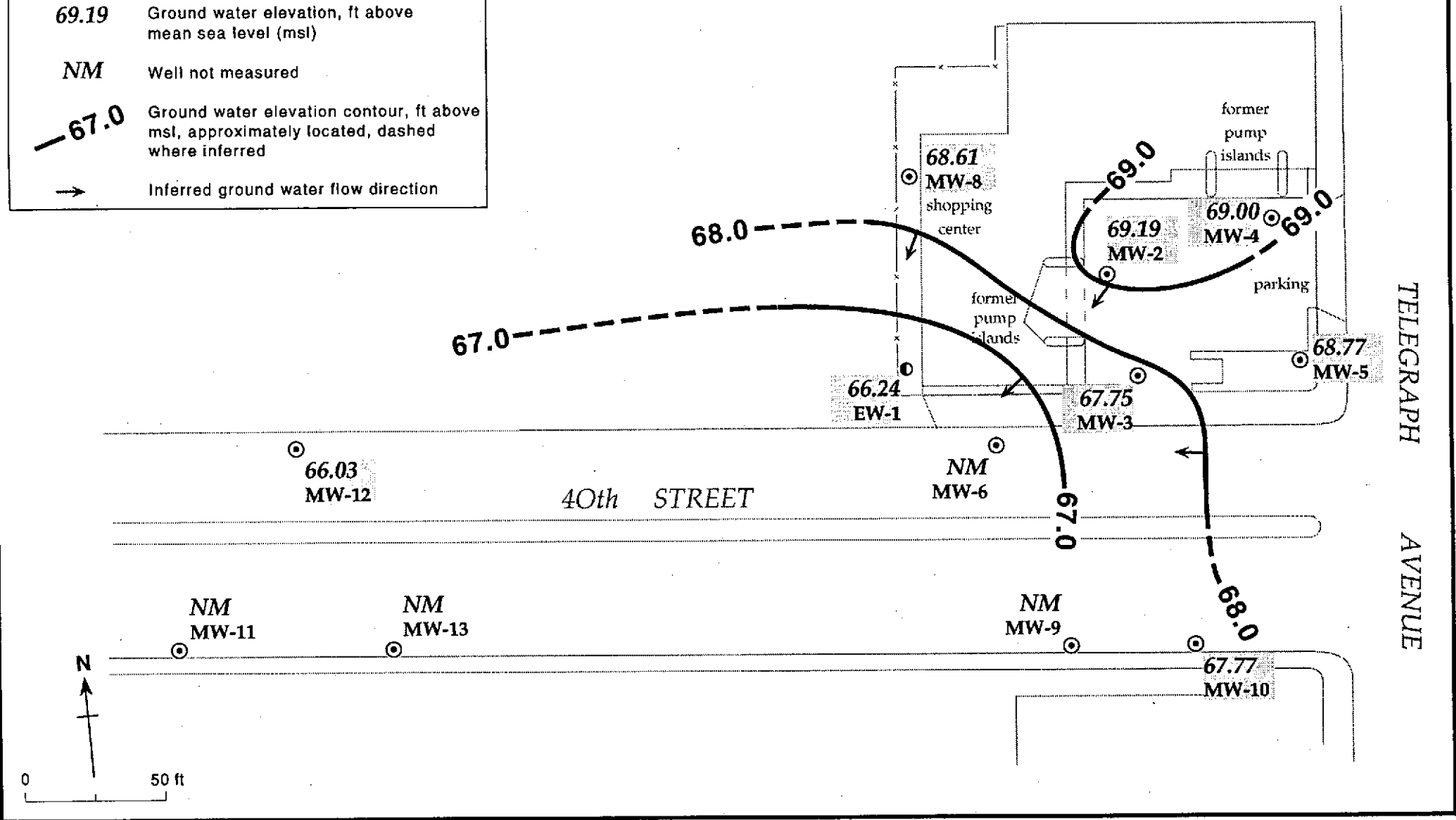


Figure 2. Monitoring Well Locations and Ground Water Elevation Contours - May26, 1994 - Shell Service Station, WIC #204-5508-4903, 500 40th Street, Oakland, California

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-5801, 500 40th Street, Oakland, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
EW-1	08/06/91	78.26	---	---
	10/30/91		12.72	65.54
	03/18/92		11.71	66.55
	05/20/92		12.84	65.42
	08/19/92		13.04	65.22
	11/18/92		12.90	65.36
	02/11/93		11.28	66.98
	05/19/93		12.52	65.74
	08/18/93		12.48	65.78
	11/17/93		12.63	65.63
	02/18/94		11.38	66.88
	05/26/94		12.02	66.24
MW-2	08/06/91	80.80	12.12	68.68
	10/30/91		11.70	69.10
	03/18/92		11.10	69.70
	05/20/92		12.12	68.68
	08/19/92		12.18	68.62
	11/18/92		12.03	68.77
	02/11/93		11.15	69.65
	05/19/93		11.80	69.00
	08/18/93 ^a		---	---
	11/17/93		12.00	68.80
	02/18/94 ^a		---	---
	05/26/94		11.61	69.19
MW-3	08/06/91	79.60	11.12	68.48
	10/30/91		10.93	68.67
	03/18/92		10.54	69.06
	05/20/92		10.79	68.81
	08/19/92		11.23	68.37
	11/18/92		11.20	68.40
	02/11/93		11.00	68.60
	05/19/93		11.16	68.44
	08/18/93		11.35	68.25
	11/17/93		11.10	68.50
	02/18/94		10.76	68.84
	05/26/94		11.85	67.75
MW-4	08/06/91	81.00	12.36	68.64

-- Table 1 continues on next page --

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-5801, 500 40th Street, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	10/30/91		12.02	68.98
	03/18/92		11.34	69.66
	05/20/92		12.35	68.65
	08/19/92		12.41	68.59
	11/18/92		12.28	68.72
	02/11/93		11.65	69.35
	05/19/93		11.92	69.08
	08/18/93 ^a		---	---
	11/17/93		12.24	68.76
	02/18/94		11.69	69.31
	05/26/94		12.00	69.00
MW-5	08/06/91	81.50	13.02	68.48
	10/30/91		12.73	68.77
	03/18/92		12.52	68.98
	05/20/92		13.05	68.45
	08/19/92		13.04	68.46
	11/18/92		12.91	68.59
	02/11/93		12.44	69.06
	05/19/93		12.84	68.66
	08/18/93		12.88	68.62
	11/17/93		12.89	68.61
	02/18/94		12.30	69.20
	05/26/94		12.73	68.77
MW-6	08/06/91	77.90	10.71	67.19
	10/30/91		10.50	67.40
	03/18/92		9.24	68.66
	05/20/92		10.13	67.77
	08/19/92		10.16	67.74
	11/18/92		9.94	67.96
	02/11/93		9.20	68.70
	05/19/93		10.64	67.86
	08/18/93		10.04	67.86
	11/17/93		10.12	67.78
	02/18/94		9.65	68.25
	05/26/94		---	---
MW-8	08/06/91	79.91	13.08	66.83
	10/30/91		12.87	67.04

-- Table 1 continues on next page --

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-5801, 500 40th Street, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	03/18/92		11.54	68.37
	05/20/92		12.32	67.59
	08/19/92		12.58	67.33
	11/18/92		12.47	67.44
	02/11/93		11.02	68.89
	05/19/93		11.78	68.13
	08/18/93		12.22	67.69
	11/17/93		12.25	67.66
	02/18/94		10.56	69.35
	05/26/94		11.30	68.61
MW-9	08/06/91	77.71	10.38	67.33
	10/30/91		---	---
	03/18/92		8.76	68.95
	05/20/92 ^a		---	---
	08/19/92		9.98	67.73
	11/18/92		9.81	67.90
	02/11/93 ^a		---	---
	05/19/93		---	---
	08/18/93		9.75	67.96
	11/17/93		9.92	67.79
	02/18/94 ^a		---	---
	05/26/94		---	---
MW-10	08/06/91	77.91	10.00	67.91
	10/31/91		10.10	67.81
	03/18/92		9.55	68.36
	05/20/92		10.41	67.50
	08/19/92		10.46	67.45
	11/18/92		10.31	67.60
	02/11/93		9.68	68.23
	05/19/93		10.19	67.72
	08/18/93		10.29	67.62
	11/17/93		10.32	67.59
	02/18/94		9.60	68.31
	05/26/94		10.14	67.77
MW-11	11/22/91	75.76	11.90	63.86
	02/15/92 ^a		---	---
	03/18/92 ^a		---	---

-- Table 1 continues on next page --

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-5801, 500 40th Street, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	05/20/92 ^a		---	---
	08/19/92		12.06	63.70
	11/18/92		12.01	63.75
	02/11/93 ^a		---	---
	05/19/93		11.90	63.86
	08/18/93		11.90	63.86
	11/17/93		11.94	63.82
	02/18/94 ^a		---	---
	05/26/94		---	---
MW-12	12/02/91	75.65	10.31	65.34
	03/18/92		8.93	66.72
	05/20/92		10.26	65.39
	08/19/92		10.53	65.12
	11/18/92		10.45	65.20
	02/11/93		8.90	66.75
	05/19/93		10.60	65.05
	08/18/93		10.28	65.37
	11/17/93		10.24	65.41
	02/18/94		8.97	66.68
	05/26/94		9.62	66.03
MW-13	11/22/91	76.36	11.96	64.40
	03/18/92		10.84	65.52
	05/20/92 ^a		---	---
	08/19/92		12.12	64.24
	11/18/92		12.00	64.42
	02/11/93 ^a		---	---
	05/19/93		12.26	64.10
	08/18/93		11.75	64.61
	11/17/93		11.78	64.58
	02/18/94 ^a		---	---
	05/26/94		---	---

Notes:

a = Inaccessible well, ground water depth not measured

Table 2. Analytical Results for Ground Water - Shell Service Station WIC #204-5508-5801, 500 40th Street, Oakland, California

Well ID	Date Sampled	Depth to Water (ft)	TPH-G TPH-D B E T X					
			-----parts per billion (µg/L)-----					
EW-1 (Semi-annually 2nd & 4th Qtrs)	08/06/91	---	180	<50	5.4	0.9	<0.5	0.7
	10/30/91	12.72	70	<50	2.6	<0.5	<0.5	<0.5
	02/15/92	11.71	<50	---	2.1	<0.5	<0.5	<0.5
	05/22/92	12.84	99	---	4.1	<0.5	<0.5	<0.5
	08/19/92	13.04	140	---	6.6	<0.5	<0.5	<0.5
	11/18/92	12.90	56	---	<0.5	<0.5	<0.5	<0.5
	02/11/93	11.28	63	---	<0.5	<0.5	<0.5	0.9
	02/11/93 ^{dup}	11.28	63	---	<0.5	<0.5	<0.5	0.8
	05/19/93	12.52	60 ^b	---	<0.5	<0.5	<0.5	<0.5
	11/17/93	12.63	170	---	17	<0.5	<0.5	<0.5
	11/17/93 ^{dup}	12.63	190	---	17	<0.5	<0.5	<0.5
	05/26/94	12.02	<50	---	3.5	<0.5	<0.5	0.51
MW-2 (Semi-annually 2nd & 4th Qtrs)	08/07/91	12.12	1,200	230	59	38	1.1	56
	10/30/91	11.70	520	300	56	56	<0.5	100
	02/15/92	11.10	2,300	2,200 ^o	87	88	<2.5	150
	05/21/92	12.12	700	---	24	34	1.0	48
	08/19/92	12.18	740	---	21	24	<2.5	26
	08/19/92 ^{dup}	12.18	840	---	31	36	<2.5	43
	11/18/92	12.03	920	---	19	30	<2.5	51
	11/18/92 ^{dup}	12.03	870	---	25	34	<2.5	52
	02/11/93	11.15	1,000	---	25	43	6.0	73
	05/19/93	11.80	570	---	19	37	<0.5	42
	11/17/93	12.00	250	---	10	26	<1.0	20
	05/26/94	11.61	620	---	17	25	1.4	31
05/26/94 ^{dup}	11.61	600	---	16	24	1.2	29	
MW-3 (Semi-annually 2nd & 4th Qtrs)	08/07/91	11.12	1,900	470	220	57	57	260
	10/30/91	10.93	1,900	480	160	63	28	180
	02/15/92	10.54	2,300	780 ^o	170	59	31	180
	05/21/92	10.79	1,500	---	160	44	20	140
	08/19/92	11.23	4,500	---	210	89	64	310
	11/18/92	11.20	2,400	---	81	39	14	140
	02/11/93	11.0	3,000	---	200	90	47	260
	05/19/93	11.16	2,100	---	240	100	44	330
	11/17/93	11.10	1,000	---	110	60	13	150
	05/26/94	11.85	1,100	---	200	29	17	58
MW-4 (Semi-annually 2nd & 4th Qtrs)	08/07/91	12.36	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/30/91	12.02	50	<50	<0.5	<0.5	<0.5	<0.5
	02/15/92	11.34	90	---	0.9	<0.5	<0.5	<0.5
	05/21/92	12.35	<50	---	<0.5	<0.5	<0.5	<0.5
	08/19/92	12.41	82 ^b	---	<0.5	<0.5	<0.5	<0.5
	11/18/92	12.28	85 ^b	---	<0.5	<0.5	<0.5	<0.5
02/11/93	11.65	62 ^b	---	<0.5	<0.5	<0.5	<0.5	

Weiss Associates



Table 2. Analytical Results for Ground Water - Shell Service Station WIC #204-5508-5801, 500 40th Street, Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G TPH-D B E T X					
			-----parts per billion (µg/L)----->					
	05/19/93	11.92	<50	---	<0.5	<0.5	<0.5	<0.5
	11/17/93	12.24	<50	---	<0.5	<0.5	<0.5	<0.5
	05/26/94	12.00	<50	---	<0.5	<0.5	<0.5	<0.5
MW-5 (Semi-annually 2nd & 4th Qtrs)	08/07/91	13.02	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/30/91	12.73	<50	<50	<0.5	<0.5	<0.5	<0.5
	02/15/92	12.52	<50	---	<0.5	<0.5	<0.5	<0.5
	05/20/92	13.05	<50	---	<0.5	<0.5	<0.5	<0.5
	08/19/92	13.04	55 ^b	---	<0.5	<0.5	<0.5	<0.5
	11/18/92	12.91	<50	---	<0.5	<0.5	<0.5	<0.5
	02/11/93	12.44	59 ^b	---	<0.5	<0.5	<0.5	<0.5
	05/19/93	12.84	<50	---	<0.5	<0.5	<0.5	<0.5
	05/19/93 ^{dup}	12.84	<50	---	<0.5	<0.5	<0.5	<0.5
	11/17/93	12.89	<50	---	<0.5	<0.5	<0.5	<0.5
	05/26/94	12.73	<50	---	1.8	1.3	2.4	4.9
MW-6 (Semi-annually 2nd & 4th Qtrs)	08/06/91	10.71	26,000	3,600	910	560	420	1,900
	10/30/91	10.50	20,000	4,600	710	410	240	1,700
	02/15/92	9.24	35,000	27,000	690	650	420	3,000
	05/21/92	10.13	15,000	---	460	300	110	1,600
	08/19/92	10.16	24,000	---	600	460	300	2,000
	11/18/92	9.94	29,000	---	480	450	250	2,300
	02/11/93	9.20	24,000	---	1,300	630	250	2,400
	05/19/93	10.04	18,000	---	750	520	180	2,500
	11/17/93	10.12	14,000	---	260	430	64	1,900
	05/26/94	---	---	---	---	---	---	---
MW-8 (Semi-annually 2nd & 4th Qtrs)	08/06/91	13.08	90	<50	<0.5	<0.5	<0.5	<0.5
	10/30/91	12.87	<50	<50	<0.5	<0.5	<0.5	<0.5
	02/15/92	11.54	<50	---	<0.5	<0.5	<0.5	<0.5
	05/20/92	12.32	<50	---	<0.5	<0.5	<0.5	<0.5
	08/19/92	12.58	60	---	<0.5	<0.5	<0.5	<0.5
	11/18/92	12.47	<50	---	<0.5	<0.5	<0.5	<0.5
	02/11/93	11.02	76 ^b	---	<0.5	<0.5	<0.5	<0.5
	05/18/93	11.78	<50	---	<0.5	<0.5	<0.5	<0.5
	11/17/93	12.25	<50	---	<0.5	<0.5	<0.5	<0.5
	05/26/94	11.30	<50	---	<0.5	<0.5	<0.5	<0.5
MW-9 (Semi-annually 2nd & 4th Qtrs)	08/06/91	10.38	3,900	190	58	80	8.8	220
	10/30/91	---	---	---	---	---	---	---
	03/18/92	8.76	1,800 ^c	210	84	49	11	60
	05/20/92	---	---	---	---	---	---	---
	08/19/92	9.98	4,600	22 ^g	63	48	<25	70
	11/18/93	9.81	1,800	130 ^g	30	46	9.2	61

-- Table 2 continues on next page --



Table 2. Analytical Results for Ground Water - Shell Service Station WIC #204-5508-5801, 500 40th Street, Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	E	T	X	parts per billion (µg/L)
									----->
	02/11/93	---	---	---	---	---	---	---	---
	05/19/93	---	---	---	---	---	---	---	---
	11/17/93	9.92	5,900	2,400 ^d	86	150	14	46	
	05/26/94	---	---	---	---	---	---	---	---
MW-10 (Semi-annually 2nd & 4th Qtrs)	08/07/91	10.00	460	<50	73	18	1.0	8.4	
	10/31/91	10.10	630	150	100	33	<0.5	26	
	02/15/92	9.55	810	570 ^b	85	44	2.5	38	
	05/21/92	10.41	280	---	47	4.0	0.7	3.1	
	08/19/92	10.46	330	---	35	6.0	<1	4.1	
	11/18/93	10.31	300	---	30	7.1	0.8	6.3	
	02/11/93	9.68	510 ^b	---	49	18	3.8	18	
	05/19/93	10.19	<50	---	96	3.4	<0.5	1.5	
	11/17/93	9.92	400	---	24	2.8	<1.0	1.9	
	05/26/94	10.14	330	---	32	7.5	13	26	
MW-11 (Quarterly)	11/22/91	11.90	450	240	1.1	<0.5	<0.5	<0.5	
	02/15/92	---	---	---	---	---	---	---	
	03/18/92	---	---	---	---	---	---	---	
	05/20/92	---	---	---	---	---	---	---	
	08/19/92	12.06	270 ^b	<50	<0.5	<0.5	<0.5	<0.5	
	11/18/92	12.01	400 ^b	100	<0.5	<0.5	<0.5	<0.5	
	02/11/93	---	---	---	---	---	---	---	
	05/20/93	11.90	200 ^b	<0.5	<0.5	<0.5	<0.5	<0.5	
	08/18/93	11.90	180 ^b	<50	<0.5	<0.5	<0.5	<0.5	
	11/17/93	11.94	150 ^b	<50 ^d	<0.5	<0.5	3.6	<0.5	
02/18/94	---	---	---	---	---	---	---		
05/26/94	---	---	---	---	---	---	---		
MW-12 (Quarterly)	12/02/91	10.31	<1,000	<50	<0.5	<0.5	<0.5	<0.5	
	03/18/92	8.93	<50	<50	<0.5	<0.5	<0.5	<0.5	
	05/20/92	10.26	180 ^b	---	<0.5	<0.5	<0.5	<0.5	
	08/19/92	10.53	230 ^b	---	<0.5	<0.5	<0.5	<0.5	
	11/18/92	10.45	220 ^b	---	<0.5	<0.5	<0.5	<0.5	
	02/11/93	8.90	240	---	<0.5	<0.5	<0.5	<0.5	
	05/19/93	10.60	110 ^b	---	<0.5	<0.5	<0.5	<0.5	
	08/18/93	10.28	140 ^b	---	<0.5	<0.5	<0.5	<0.5	
	11/17/93	10.24	120 ^b	---	<0.5	<0.5	<0.5	<0.5	
	02/18/94	8.97	180 ^b	---	1.7	0.90	2.1	4.8	
05/26/94	9.62	150	---	<0.5	<0.5	<0.5	<0.5		
MW-13 (Semi-annually 2nd & 4th Qtrs)	11/22/91	11.96	900	1,000	37	74	9.5	130	
	03/18/92	10.84	900 ^c	590 ^a	24	320	28	320	
	05/20/92	---	---	---	---	---	---	---	

-- Table 2 continues on next page --

Weiss Associates



Table 2. Analytical Results for Ground Water - Shell Service Station WIC #204-5508-5801, 500 40th Street, Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	parts per billion (µg/L)					
			TPH-G	TPH-D	B	E	T	X
	08/19/92	12.12	7,000	470 ^b	180	150	36	150
	11/18/92	12.00	---	---	---	---	---	---
	02/11/93	---	---	---	---	---	---	---
	05/20/93	12.26	9,200	---	320	490	83	950
	11/17/93	11.78	38,000	3,800	210	1,000	<130	2,500
	05/26/94	---	---	---	---	---	---	---
Field Blank	08/19/92		<50	---	<0.5	<0.5	0.5	0.5
	11/18/92		<50	---	<0.5	<0.5	<0.5	<0.5
Trip Blank	02/15/92		<50	<50	<0.5	<0.5	<0.5	<0.5
	03/18/92		<50	---	<0.5	<0.5	<0.5	<0.5
	05/21/92		<50	---	<0.5	<0.5	<0.5	<0.5
	08/19/92		<50	---	<0.5	<0.5	<0.5	<0.5
	11/18/92		<50	---	<0.5	<0.5	<0.5	<0.5
	02/11/93		<50	---	<0.5	<0.5	<0.5	<0.5
	05/20/93		<50	---	<0.5	<0.5	<0.5	<0.5
	08/18/93		<50	---	<0.5	<0.5	<0.5	<0.5
	11/17/93		<50	---	<0.5	<0.5	<0.5	<0.5
	02/18/94		<50	---	<0.5	<0.5	<0.5	<0.5
	05/26/94		<50	---	<0.5	<0.5	<0.5	<0.5
DTCS MCLs			NE	NE	1	680	100 ^e	1,750

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
 TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015
 TPH-MO = Total petroleum hydrocarbons as motor oil by EPA Method 8015
 B = Benzene by EPA Method 8020
 E = Ethylbenzene by EPA Method 8020
 T = Toluene by EPA Method 8020
 X = Xylenes by EPA Method 8020
 NE = Not established
 DTCS MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water
 --- = Not analyzed
 ND = Not detected

Notes:

a = Concentration reported as diesel is primary due to the presence of a lighter petroleum product, possible gasoline or kerosene
 b = Concentration reported as gasoline is primarily due to the presence of discrete hydrocarbon peaks not indicative of gasoline
 c = Compounds detected and calculated as gasoline do not match the standard gasoline chromatographic pattern
 d = The concentrations reported as diesel are primarily due to the presence of a lighter petroleum product of hydrocarbon range C6-C12, possibly gasoline.
 e = DTSC recommended action level; MCL not established



Table 2B. Analytic Results for Ground Water - Volatile Organic Compounds - Shell Service Station WIC #204-5508-5801, 500 40th Street, Oakland, California

Well ID	Date Sampled	Depth to Water (ft)	TCE	PCE	Chloroform	cis-1,2-DCE	1,2-DCA	1,1-DCA
			-----parts per billion (µg/l)----->					
EW-1	11/18/93	12.63	5.5	<0.05	<0.05	6.8	2.4	0.69
	11/18/93 ^{dup}	12.63	5.1	---	---	6.5	2.3	0.63
MW-4	11/18/93	12.24	2.5	36	1.3	3.5	<0.5	<0.5
MW-5	11/18/93	12.89	2.0	34	1.0	1.2	<0.5	<0.5
MW-8	11/18/93	12.25	1.8	50	1.1	1.1	<1.0	<1.0
OMW-9	11/18/93	9.92	<0.5	<0.5	<0.5	0.68	<0.05	<0.05
OMW-10	11/18/93	10.32	1.7	1.9	<0.5	3.9	<0.5	<0.5
OMW-11	11/18/93	11.94	40	380 <10	<10	42	<10	<10
	11/18/93	10.24	13	400	<10	11	<10	<10
OMW-12	02/18/94	8.97	14	430	<10	11	<10	<10
	11/18/93	11.78	<10	<10	<10	<10	<10	<10
DTSC MCLs			5	5	NE	6	0.5	.5

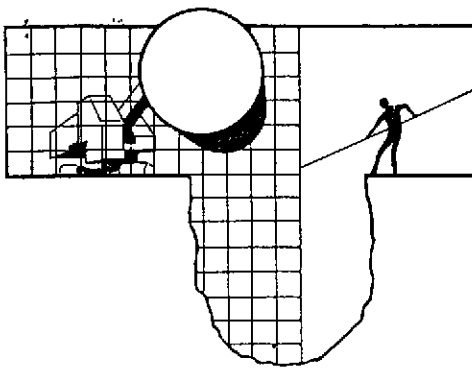
Abbreviations:

TCE = Trichloroethene by EPA Method 601/8010 or 8240
 TCA = 1,1,1-Trichloroethane by EPA Method 601/8010 or 8240
 PCE = Tetrachloroethene by EPA Method 601/8010 or 8240
 cis-1,2-DCE = cis-1,2-Dichloroethene by EPA Method 601/8010 or 8240
 trans-1,2-DCE = trans-1,2-Dichloroethene by EPA Method 601/8010 or 8240
 --- = Not analyzed
 <n = Not detected above detection limit of n ppb
 1,2-DCA = 1,2 dichloroethane by EPA Method 601/8010 or 8240
 DTCS MCLs = Department of Toxic Substance control maximum contaminant levels
 NE = DTSC MCL not established
 ND = Analyte not detected, detection limit not known

Notes:



ATTACHMENT A
GROUND WATER MONITORING REPORT AND ANALYTIC REPORT



BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

June 16, 1994

Shell Oil Company
P.O. Box 5278
Concord, CA 94520-9998

Attn: Lynn Walker

SITE:
Shell WIC #204-5508-4903
500 40th Street
Oakland, California

QUARTER:
2nd quarter of 1994

QUARTERLY GROUNDWATER SAMPLING REPORT 940526-A-1

This report contains data collected during routine inspection, gauging and sampling of groundwater monitoring wells performed by Blaine Tech Services, Inc. in response to the request of the consultant who is overseeing work at this site on behalf of our mutual client, Shell Oil Company. Data collected in the course of our field work is presented in a **TABLE OF WELL GAUGING DATA**. The field information was collected during our preliminary gauging and inspection of the wells, the subsequent evacuation of each well prior to sampling, and at the time of sampling.

Measurements taken include the total depth of the well and the depth to water. The surface of water was further inspected for the presence of immiscibles which may be present as a thin film (a sheen on the surface of the water) or as a measurable free product zone (FPZ). At intervals during the evacuation phase, the purge water was monitored with instruments that measure electrical conductivity (EC), potential hydrogen (pH), temperature (degrees Fahrenheit), and turbidity (NTU). In the interest of simplicity, fundamental information is tabulated here, while the bulk of the information is turned over directly to the consultant who is making professional interpretations and evaluations of the conditions at the site.

STANDARD PROCEDURES

Evacuation

Groundwater wells are thoroughly purged before sampling to insure that the sample is collected from water that has been newly drawn into the well from the surrounding geologic formation. The selection of equipment to evacuate each well is based on the physical characteristics of the well and what is known about the performance of the formation in which the well has been installed. There are several suitable devices which can be used for evacuation. The most commonly employed devices are air or gas actuated pumps, electric submersible pumps, and hand or mechanically actuated bailers. Our personnel frequently employ USGS/Middleburg positive displacement pumps or similar air actuated pumps which do not agitate the water standing in the well.

Normal evacuation removes three case volumes of water from the well. More than three case volumes of water are removed in cases where more evacuation is needed to achieve stabilization of water parameters and when requested by the local implementing agency. Less water may be obtained in cases where the well dewateres and does not recharge to 80% of its original volume within two hours and any additional time our personnel have reason to remain at the site. In such cases, our personnel return to the site within twenty four hours and collect sample material from the water which has recharged into the well case.

Decontamination

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site. Effluent water from purging and on-site equipment cleaning is collected and transported to Shell's Martinez Manufacturing Complex in Martinez, California.

Free Product Skimmer

The column headed, VOLUME OF IMMISCIBLES REMOVED (ml) is included in the TABLE OF WELL GAUGING DATA to cover situations where a free product skimming device must be removed from the well prior to gauging. Skimmers are installed in wells with a free product zone on the surface of the water. The skimmer is a free product recovery device which often prevents normal well gauging and free product zone measurements. The 2.0" and 3.0" PetroTraps fall into the category of devices that obstruct normal gauging. In cases where the consultant elects to have our personnel pull the skimmers out of the well and gauge the well, our personnel perform the additional task of draining the accumulated free product out of the PetroTrap before putting it back in the well. This

recovered free product is measured and logged in the VOLUME OF IMMISCIBLES REMOVED column. Gauging at such site is performed in accordance with specific directions from the professional consulting firm overseeing work at the site on Shell's behalf.

Sample Containers

Sample material is collected in specially prepared containers which are provided by the laboratory that performs the analyses.

Sampling

Sample material is collected in stainless steel bailer type devices normally fitted with both a top and a bottom check valve. Water is promptly decanted into new sample containers in a manner which reduces the loss of volatile constituents and follows the applicable EPA standard for handling volatile organic and semi-volatile compounds.

Following collection, samples are promptly placed in an ice chest containing prefrozen blocks of an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

Sample Designations

All sample containers are identified with a site designation and a discrete sample identification number specific to that particular groundwater well. Additional standard notations (e.g. time, date, sampler) are also made on the label.

Chain of Custody

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under a standard Shell Oil Company chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of the person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to Sequoia Analytical Laboratory in Redwood City, California. Sequoia Analytical Laboratory is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1210.

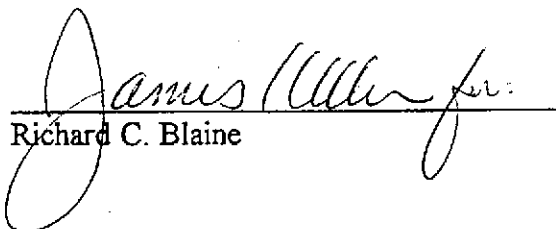
Objective Information Collection

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. performs no consulting and does not become involved in the marketing or installation of remedial systems of any kind. Blaine Tech Services, Inc. is concerned only with the generation of objective information, not with the use of that information to support evaluations and recommendations concerning the environmental condition of the site. Even the straightforward interpretation of objective analytical data is better performed by interested regulatory agencies, and those engineers and geologists who are engaged in the work of providing professional opinions about the site and proposals to perform additional investigation or design remedial systems.

Reportage

Submission of this report and the attached laboratory report to interested regulatory agencies is handled by the consultant in charge of the project. Any professional evaluations or recommendations will be made by the consultant under separate cover.

Please call if we can be of any further assistance.


Richard C. Blaine

RCB/lp

attachments: table of well gauging data
chain of custody
certified analytical report

cc: Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608-2411
ATTN: Michael Asport

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
EW-1	5/26/94	TOC	—	NONE	—	—	12.02	38.38
MW-2 *	5/26/94	TOC	ODOR	NONE	—	—	11.61	19.47
MW-3	5/26/94	TOC	—	NONE	—	—	11.85	18.65
MW-4	5/26/94	TOC	—	NONE	—	—	12.00	14.87
MW-5	5/26/94	TOC	—	NONE	—	—	12.73	20.13
OMW-6	5/26/94	INACCESSIBLE						
MW-8	5/26/94	TOC	—	NONE	—	—	11.30	38.66
OMW-9	5/26/94	INACCESSIBLE						
OMW-10	5/26/94	TOC	—	NONE	—	—	10.14	16.00
OMW-11	5/26/94	INACCESSIBLE						
OMW-12	5/26/94	TOC	—	NONE	—	—	9.62	19.42
OMW-13	5/26/94	INACCESSIBLE						

* Sample DUP was a duplicate sample taken from well MW-2.



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 940526M

Date: 5/22/94
Page 1 of 2

Site Address: 500 40th Street, Oakland
WIC#: 204-5508-4903
Shell Engineer: Lynn Walker
Phone No.: (510) 675-6169
Fax #: 675-6172
Consultant Name & Address: Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133
Consultant Contact: Jim Keller
Phone No.: (408) 995-5535
Fax #: 293-8773

Analysis Required

LAB: Amesbury Superior

CHECK ONE (1) BOX ONLY	CI/DI	TURN AROUND TIME
Quantity Monitoring	<input checked="" type="checkbox"/> 6441	24 hours <input type="checkbox"/>
Site Investigation	<input type="checkbox"/> 6441	48 hours <input type="checkbox"/>
Soil Cleanup/Disposal	<input type="checkbox"/> 6442	16 days <input checked="" type="checkbox"/> (Normal)
Water Cleanup/Disposal	<input type="checkbox"/> 6443	Other <input type="checkbox"/>
Soil/Air Item or Typ. O & M	<input type="checkbox"/> 6442	NOTE: Notify Lab as soon as possible at 24/48 hrs. TAT.
Water Item or Typ. O & M	<input type="checkbox"/> 6443	
Other	<input type="checkbox"/>	

Comments:
Sampled by: Jeff Curtis
Printed Name: JEFF CURTIS

Sample ID	Date	Sludge	Soil	Water	Air	No. of confs.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/802)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS	
MW4	5/22/94			W		3						X					group water	9405H29-01	
MW5						3						X							-02
MW8						3						X							-03
EW1						3						X							-04
AMW12						3						X							-05
MW2						3						X							-06
Other 10						3						X							-07
MW3	5/22/94					3						X							-08

Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>JEFF CURTIS</u>	Date: <u>5-27-94</u>	Time: <u>10:45</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>Gres Fletcher</u>	Date: <u>5-27-94</u>	Time: <u>10:45</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>Gres Fletcher</u>	Date: <u>5-27-94</u>	Time: <u>11:55</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>[Signature]</u>	Date: <u></u>	Time: <u></u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u></u>	Date: <u></u>	Time: <u></u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>KEITH E. GROSS</u>	Date: <u>05-27-94</u>	Time: <u>11:55</u>



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 940526A1

Date: 5/26/94

Page 2 of 2

Silo Address: 500 40th Street, Oakland

WIC#: 204-5508-4903

Shell Engineer: Lynn Walker
Phone No.: (510) 575-6169
Fax #: 675-6172

Consultant Name & Address: Blaine Tech Services, Inc.
985 Timothy Drive San Jose, CA 95133

Consultant Contact: Jim Keller
Phone No.: (408) 295-5535
Fax #: 293-8773

Comments:

Sampled by: Jeff Curtis

Printed Name: JEFF CURTIS

Analysis Required

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N
-------------------------	----------------------------	---------------------	------------------------------	-------------------	----------------------------------	----------	----------------	------------------	---------------

LAB: Amesbury Services

CHECK ONE (1) FOR ONLY	CI/DI	TURN AROUND TIME
Quarterly Monitoring	<input checked="" type="checkbox"/> 1441	24 hours <input type="checkbox"/>
Site Investigation	<input type="checkbox"/> 1441	48 hours <input type="checkbox"/>
Soil Cleanup/Disposal	<input type="checkbox"/> 1442	14 days <input checked="" type="checkbox"/> (Hemmed)
Water Cleanup/Disposal	<input type="checkbox"/> 1443	Other <input type="checkbox"/>
Sed/Ab Sam. or Typ. O & M	<input type="checkbox"/> 1442	
Water Sam. or Typ. O & M	<input type="checkbox"/> 1443	
Other	<input type="checkbox"/>	

NOTE: Notify Lab as soon as possible of 24/48 hr. LAT.

Sample ID	Date	Sludge	Soil	Water	Air	No. of conds.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS	
DUP	5/26			W		3						X					ground	94051424-01	
EB						3						X					water	-10	
TRIP BLANK						2						X							-11

Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>JEFF CURTIS</u>	Date: <u>5-27-94</u>	Time: <u>10:45</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>GREG FULTCHER</u>	Date: <u>5-27-94</u>	Time: <u>10:45</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>GREG FULTCHER</u>	Date: <u>5-27-94</u>	Time: <u>11:30</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>[Signature]</u>	Date: <u>5-27-94</u>	Time: <u>11:55</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>[Signature]</u>	Date: <u>5-27-94</u>	Time: <u>[Signature]</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>KEITH E. GREGG</u>	Date: <u>05-27-94</u>	Time: <u>11:55</u>



Sequoia Analytical

680 Chesapeake Drive
1900 Bates Avenue, Suite L
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Concord, CA 94520
Sacramento, CA 95834

(415) 364-9600
(510) 686-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 686-9689
FAX (916) 921-0100

Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Project: 940526-A1, Shell, 500 40th Street

Enclosed are the results from 11 water samples received at Sequoia Analytical on May 27, 1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4EH2901	Water, MW4	5/26/94	EPA 5030/8015 Mod./8020
4EH2902	Water, MW5	5/26/94	EPA 5030/8015 Mod./8020
4EH2903	Water, MW8	5/26/94	EPA 5030/8015 Mod./8020
4EH2904	Water, EW1	5/26/94	EPA 5030/8015 Mod./8020
4EH2905	Water, OMW12	5/26/94	EPA 5030/8015 Mod./8020
4EH2906	Water, MW2	5/26/94	EPA 5030/8015 Mod./8020
4EH2907	Water, OMW10	5/26/94	EPA 5030/8015 Mod./8020
4EH2908	Water, MW3	5/26/94	EPA 5030/8015 Mod./8020
4EH2909	Water, Dup	5/26/94	EPA 5030/8015 Mod./8020
4EH2910	Water, E.B.	5/26/94	EPA 5030/8015 Mod./8020
4EH2911	Water, Trip Blank	5/26/94	EPA 5030/8015 Mod./8020

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager



Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940526-A1, Shell, 500 40th Street Sample Matrix: Water Analysis Method: EPA 5030/8015 Mod./8020 First Sample #: 4EH2901	Sampled: May 26, 1994 Received: May 27, 1994 Reported: Jun 7, 1994
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TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4EH2901 MW4	Sample I.D. 4EH2902 MW5	Sample I.D. 4EH2903 MW8	Sample I.D. 4EH2904 EW1	Sample I.D. 4EH2905 OMW12	Sample I.D. 4EH2906 MW2
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.	150	620
Benzene	0.50	N.D.	1.8	N.D.	3.5	N.D.	17
Toluene	0.50	N.D.	2.4	N.D.	N.D.	N.D.	1.4
Ethyl Benzene	0.50	N.D.	1.3	N.D.	N.D.	N.D.	25
Total Xylenes	0.50	N.D.	4.9	N.D.	0.51	N.D.	31
Chromatogram Pattern:		--	--	--	--	C8 - C12	C6 - C12

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	6/1/94	6/1/94	5/31/94	6/1/94	5/31/94	5/31/94
Instrument Identification:	GCHP-2	GCHP-2	GCHP-2	GCHP-17	GCHP-2	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	110	108	106	100	107	117

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL


Suzanne Chin
Project Manager



Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940526-A1, Shell, 500 40th Street Sample Matrix: Water Analysis Method: EPA 5030/8015 Mod./8020 First Sample #: 4EH2907	Sampled: May 26, 1994 Received: May 27, 1994 Reported: Jun 7, 1994
--	---	--

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4EH2907 OMW10	Sample I.D. 4EH2908 MW3	Sample I.D. 4EH2909 Dup	Sample I.D. 4EH2910 E.B.	Sample I.D. 4EH2911 Trip Blank
Purgeable Hydrocarbons	50	330	1,100	600	N.D.	N.D.
Benzene	0.50	32	200	16	N.D.	N.D.
Toluene	0.50	13	17	1.2	N.D.	N.D.
Ethyl Benzene	0.50	7.5	29	24	N.D.	N.D.
Total Xylenes	0.50	26	58	29	N.D.	N.D.
Chromatogram Pattern:		C6 - C12	C6 - C12	C6 - C12	--	--

Quality Control Data

Report Limit Multiplication Factor:	2.0	5.0	1.0	1.0	1.0
Date Analyzed:	6/1/94	6/1/94	5/31/94	5/31/94	5/31/94
Instrument Identification:	GCHP-3	GCHP-3	GCHP-2	GCHP-2	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	108	136	109	102	108

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager



Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: 940526-A1, Shell, 500 40th Street
Matrix: Liquid

QC Sample Group: 4EH2901-03, 05-06, 09-11

Reported: Jun 7, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel

MS/MSD Batch#:	4EG3202	4EG3202	4EG3202	4EG3202
Date Prepared:	-	-	-	-
Date Analyzed:	5/31/94	5/31/94	5/31/94	5/31/94
Instrument I.D.#:	GCHP-2	GCHP-2	GCHP-2	GCHP-2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	100	100	100	103
Matrix Spike Duplicate % Recovery:	100	100	100	100
Relative % Difference:	0.0	0.0	0.0	3.0

LCS Batch#:	-	-	-	-
Date Prepared:	-	-	-	-
Date Analyzed:	-	-	-	-
Instrument I.D.#:	-	-	-	-
LCS % Recovery:	-	-	-	-

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager



Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: 940526-A1, Shell, 500 40th Street
Matrix: Liquid

QC Sample Group: 4EH2904

Reported: Jun 7, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel

MS/MSD

Batch#: 4EH2304 4EH2304 4EH2304 4EH2304

Date Prepared: - - - -
Date Analyzed: 6/1/94 6/1/94 6/1/94 6/1/94
Instrument I.D.#: GCHP-17 GCHP-17 GCHP-17 GCHP-17
Conc. Spiked: 10 µg/L 10 µg/L 10 µg/L 30 µg/L

Matrix Spike
% Recovery: 97 100 100 107

Matrix Spike
Duplicate %
Recovery: 90 91 91 93

Relative %
Difference: 7.5 9.4 9.4 14

LCS Batch#: - - - -
Date Prepared: - - - -
Date Analyzed: - - - -
Instrument I.D.#: - - - -
LCS %
Recovery: - - - -

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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SEQUOIA ANALYTICAL


Suzanne Chin
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.



Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: 940526-A1, Shell, 500 40th Street
Matrix: Liquid

QC Sample Group: 4EH2907-08

Reported: Jun 7, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel

MS/MSD Batch#:	4EH2502	4EH2502	4EH2502	4EH2502
Date Prepared:	-	-	-	-
Date Analyzed:	6/1/94	6/1/94	6/1/94	6/1/94
Instrument I.D.#:	GCHP-3	GCHP-3	GCHP-3	GCHP-3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	110	110	110	110
Matrix Spike Duplicate % Recovery:	110	110	110	110
Relative % Difference:	0.0	0.0	0.0	0.0

LCS Batch#:	-	-	-	-
Date Prepared:	-	-	-	-
Date Analyzed:	-	-	-	-
Instrument I.D.#:	-	-	-	-
LCS % Recovery:	-	-	-	-

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL


Suzanne Chin
Project Manager